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Synonymies in the European Omaliinae, with notes on distribution (Coleoptera: Staphylinidae)

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Abstract. The following new synonymies in the European Staphylinidae Omaliinae are proposed: *Eusphalerum minutum* (FABRICIUS 1792) = *E. petzianum* (BERNHAEUER 1929) nov.syn. = *E. jurassicum* (JARRIGE 1946) nov.syn. = *E. subjurassicum* COIFFAIT 1959 nov.syn.; *Eusphalerum anale* (ERICHSON 1840) = *E. subangusticollae* COIFFAIT 1959 nov.syn.; *Phyllodrepa melis* HANSEN 1940 = *P. linderi* SCHEERPELTZ 1966 nov.syn.; *Mannerheimia brevipennis* (MOTSCHULSKY 1860) = *M. doderoi* GRIDELLI 1924 nov.syn.; *Olophrum piceum* (GYLLENHAL 1810) = *O. austriacum* SCHEERPELTZ 1929 nov.syn. = *O. leleupi* FAGEL 1948 nov.syn. *Olophrum puncticolle* EPPELSHEIM 1880 = *Olophrum viennense* SCHEERPELTZ 1929 nov.syn. The following synonymies are confirmed: *Olophrum fuscum* (GRAVENHORST 1806) = *Olophrum transversicollae* LUZE 1905; *Arpedium* ERICHSON 1839 = *Eucnecus* REITTER 1909 (synonym, not subgenus); *Geodromicus kunzei* (HEER 1839) = *Geodromicus lituratus* (KRAATZ 1857). Lectotypes of the following species are designated: *Sylpha minuta* FABRICIUS 1792, *Omalium ranunculi* GRAVENHORST 1802, *Omalium nigrum* GRAVENHORST 1806, *Omalium translucidum* KRAATZ 1857, *Phyllodrepa linderi* SCHEERPELTZ 1966, *Omalium piceum* GYLLENHAL 1810, *Olophrum puncticolle* EPPELSHEIM 1880, *Anthophagus lituratus* KRAATZ 1857.

Key words: Coleoptera, Staphylinidae, Omaliinae, Europe, new synonymies, confirmed synonymies, distribution.

Introduction

This paper is intended to rectify the list of genera and species in the most recent available checklist of Central European Staphylinidae, subfamily Omaliinae (ASSING & SCHÜLKE 2007), prior to the preparation of new keys for the identification of Central European Staphylinidae. Some taxa needed a revision owing to their unclear state. Their study, mostly based on type revision, yielded new or revalidated synonymies of genera and species. Also, some remarks on the checklist, including additions and deletions, are added.

Material and methods

The acronyms of the museums in which the types are deposited are here listed with the

name of the curators who made the types available and to whom I am grateful for their assistance.

DEI..... Deutsches Entomological Institut, Müncheberg (L. Zerche)
 EMZU Evolutionmuseet, zoologi, Uppsala (H. Mejlön)
 FMNH Field Museum of Natural History, Chicago (A.F. Newton, P.P. Parrillo)
 IRSNB..... Institut Royal des Sciences Naturelles de Belgique, Bruxelles (Y. Gérard)
 MNHNP Muséum National d'Histoire Naturelle, Paris (A. Taghavian)
 MNHUB..... Museum für Naturkunde der Humboldt-Universität, Berlin (J. Frisch)
 NHMW. Naturhistorisches Museum Wien (H. Schillhammer)
 ZMUC..... Zoological Museum, University of Copenhagen (A. Solodovnikov)

Typical material of both senior and junior synonyms was examined for new synonymies; in the case of revalidated names, at least the type material of the junior synonym was studied.

Results

Eusphalerum minutum (FABRICIUS 1792)

Sylpha minuta FABRICIUS 1792. Lectotype female (**here designated**) labelled "minuta" (original) / Lectotype *Sylpha minuta* Fabricius, 1792 des. Zanetti, 2008 / *Eusphalerum minutum* (Fabricius, 1792) det. Zanetti 2008; 1 paralectotype male, on the same label, without abdomen and part of legs (ZMUC) (Fig. 31).

Omalium ranunculi GRAVENHORST 1802. Lectotype male (**here designated**) labelled 6921 / *Omalium ranunculi* Gravenhorst des. Zanetti 2007 / lectotypus (red) / *Eusphalerum minutum* (F.) det. Zanetti 2007 / *minutum* Er. (sic) *Silpha* m. F. - *O. ranunculi* Gr. (original label), 3 paralectotypes males and 4 paralectotypes females labelled Hist-Coll. (Coleoptera) Nr. 6921 *Anthobium minutum* Erichs. Europa Zool. Mus. Berlin (recent label) / *Omalium ranunculi* Gravenhorst des. Zanetti 2007 / paralectotypus (red); one paralectotype male has also the label "paludosum Heer Helvet. Heer", original) (MNHUB) (Fig. 2).

Anthobium petzianum BERNHAUER 1929 **nov.syn.** Type (female) Schoberstein Austria sup. Mont. Petz / 4352 (FMNH) (Fig. 8).

Anthobium jurassicum JARRIGE 1845 **nov.syn.** Type (male) Juogne Jura VII.26/Coll. Ph. Naude / Type (red) / Museum Paris; 1 paratype (male, labelled as cotype), 1 specimen (female, probably paratype, not labelled as paratype) with the same locality label (MNHNP) (Fig. 1).

Eusphalerum subjurassicum COIFFAIT 1959 **nov.syn.** Paratype (male) St Paul B.A. L. Levasseur coll./subjurassicum Coiff./Paratype (red) / Museum Paris (MNHNP) (Fig. 3).

C o m m e n t s : The typical series of *Eusphalerum minutum* includes one damaged male and one female. As the male is without aedeagus, the female is designated as the lectotype. The shape of the elytra allows a positive identification. The typical series of *O. ranunculi* confirms the synonymy with *O. minutum*.

E. petzianum was described based on a female from Schoberstein "in der Nähe der Stadt Steyr in Oberösterreich". Other records from Austria (Salzburg, Steyermark) are reported in HORION (1963, misquoted by HERMAN (2001) that includes also Switzerland, France, Austria and Italy in the distribution of the species). The main character distinguishing *E. petzianum* from *E. minutum* is body size, almost double (3.2 mm). Also, form and punctuation of the pronotum are supposedly distinctive, with the pronotum shorter, and the punctuation twice as coarse and dense. This species was considered a possible junior synonym of *E. minutum* by ZANETTI (1987). The examination of material of *E. minutum*

from most parts of Europe confirms this opinion, the type of *E. petzianum* is a large specimen of *E. minutum* (size range reported in the literature is 2-2.5 mm, see COIFFAIT 1959 and ZANETTI 1987; LOHSE 1964 does not indicate the size). Coarse and dense punctuation is often present in large specimens of *Eusphalerum*. Elytra are within the range of variability of *E. minutum* (Fig. 8).

Eusphalerum jurassicum was described as close to *E. anale* (ERICHSON 1840), the main differential charactes being the completely different shape of the aedeagus. No reference to *E. minutum* is given in the original description. COIFFAIT (1959) includes *E. jurassicum* in the "groupe *jurassicum*" of the subgenus *Abinothum* and *E. minutum* in the "groupe *minutum*" of the subgenus *Eusphalerum*. He distinguishes these subgenera by the length of the elytra, a very variable character that is inadequate for defining distinct phyletic lines in *Eusphalerum*. On the other hand, the drawings of the aedeagus, even if very schematic, show that *E. jurassicum* and *E. minutum* are very closely related. LOHSE (1964) follows COIFFAIT and includes *E. jurassicum* in the subgenus *Abinothum* and *E. minutum* in the subgenus *Eusphalerum*. According to ZANETTI (1987), *Abinothum* is not a distinct subgenus in *Eusphalerum* and *E. jurassicum* is closely related to *E. minutum*. HERMAN (2001), in the section on *E. jurassicum*, misquotes Lohse (l.c.) as follows: "Lohse, 1964: 36 (*Eusphalerum*; subgenus *Pareusphalerum*; characters; central Europe)". The true page is 32 and the subgenus is *Abinothum*. SMETANA (2004) follows Herman (l.c.) and includes *E. jurassicum* in the subgenus *Pareusphalerum*. In the original description the typical series of *E. jurassicum* includes 2 males (type, paratype) and 2 females (two paratypes). I have examined the type, 1 male paratype and 1 female not labelled as paratype with a locality label identical to the one of the type. They all are evidently small specimens of *E. minutum*, a species widely distributed in Central Europe, whose size range is usually 2-2.5 mm (see above). Possibly Jarrige was fooled by the small size of the specimens (1.7 mm), but the aedeagus allows a reliable identification as *E. minutum* (Fig. 1, the paratype is represented because the aedeagus of the type, dissected by Jarrige himself, is strongly dried and inadequate for a slide preparation). Differences that can be observed in the shape of the aedeagus are artefacts resulting from the conservation of the specimen, strongly dried specimens have sunken lateral margins in the median lobe (Figs 1, 2 and 3). Also, the shape of the apex of the elytra of the female is within the range of variability of *E. minutum*, it is not sinuate near the apex of the suture as is often the case in small specimens (Figs 5-8).

Eusphalerum subjurassicum was described based on specimens from the Basses-Alpes (Saint-Paul-sur-Ubaye leg. Fagniez, coll. Levasseur). The external characters supposedly distinguishing it from *E. jurassicum* (head with two normal frontal tips, without furrows nor fore small tips) and the shape of the aedeagus are within the variability range of *E. minutum* (Fig. 3). The examination of a male paratype confirms the synonymy.

***Eusphalerum anale* (ERICHSON 1840)**

Anthobium anale ERICHSON 1840

Eusphalerum subangusticolle COIFFAIT 1959 **nov.syn.** Type (male) Col de la Cayolle VII A.U.(?) 38 / holotype (red) / *E. subangusticolle* / Museum Paris (MNHN) (Fig. 4).

C o m m e n t s : In the original description COIFFAIT (1959) wrote: "Insect ayant un faciès voisin de celui d'*anale* mais un édéage voisin de celui d'*angusticolle*". The holotype of the species was not dissected by COIFFAIT, its aedeagus demonstrates that

subangusticollis is a synonym of *anale*. Similarly, a topotype of *subangusticollis* identified by Coiffait and conserved in the Muséum d'Histoire Naturelle de Genève is *anale*. The lectotype of *anale* was designated by ZANETTI (1980).

***Phyllodrepa nigra* (GRAVENHORST 1806)**

Phyllodrepa nigra (GRAVENHORST 1806). Lectotype male (**here designated**) with aedeagus in Euparal labelled Hist-Coll. (Coleoptera) Nr. 6894 *Omalium nigrum* Gravh. Suecia. – Bavaria 6894 Zool. Mus. Berlin (recent label) / *Omalium nigrum* Gravenhorst des. Zanetti 2007 / lectotypus (red) / *Phyllodrepa nigra* Gravh. det. Zanetti 2007; 3 paralectotypes males and 1 paralectotype females with the same label, one also with the original label "Suec.", 1 paralectotype female with the original label "nigrum Gr. salicinum Gyll. Bavaria Waltt. Suecia Schupp." (MNHUB) (Fig. 10)

Phyllodrepa translucida (KRAATZ 1857) **synonymy confirmed**. Lectotype male (**here designated**), damaged by *Anthrenus* (left half of head, left margin of pronotum, right margin of abdomen and part of the legs are lacking) labelled Silesia / syntypus (red) / *translucidum* mihi Siles. / 7 / coll. Kraatz / Dtsch. Entomol. Institut Berlin / coll. DEI Müncheberg / aedeagus in Euparal / lectotypus (red) / *Phyllodrepa translucida* / *Phyllodrepa nigra* (Gravh.) det. Zanetti 2007 (DEI); 1 paralectotype male with the same data, without head, pronotum damaged in the anterior part (Fig. 9)

C o m m e n t s : *Phyllodrepa translucida* (KRAATZ 1857) was considered a junior synonym of *P. nigra* (GRAVENHORST 1806) first by LUZE (1906). The species was revalidated by LOHSE (1964) who wrote "Ich sah bisher nur den Typus aus Schlesien, zweifellos eine gute Art und keine Form von *nigra*". The aedeagi of the lectotypes demonstrate that they belong to the same species (Figs 9-10).

***Phyllodrepa melis* HANSEN 1940**

Phyllodrepa melis HANSEN 1940

Phyllodrepa linderi SCHEERPELTZ 1966 **nov.syn.** Lectotype (male) (**here designated**) labelled ♂ / Freiburg 1934 / ex coll. Scheerpeltz (blue) / Typus *Phyllodrepa Linderi* O. Scheerpeltz (red) / vidit A. Zanetti 1985 / Lectotype *Phyllodrepa linderi* Scheerp. des. A. Zanetti 2008 / *Phyllodrepa melis* Hansen det. Zanetti 2008; paralectotype ♀ with the same data (NHMW).

C o m m e n t s : *Phyllodrepa linderi* was described as closely related to *P. melis*, a North and Central European species inhabiting the burrows of badger (*Meles meles*). In a previous work (ZANETTI 1987) I considered the synonymy of these taxa most likely. I have re-examined the type series and designated the lectotype, whose aedeagus is deformed by the dryness, as often happens in the Omaliinae (Fig. 12), but has the general shape that corresponds to that of *P. melis* (Fig. 11). Also the external characters fall in the variability range of *P. melis*.

***Mannerheimia brevipennis* (MOTSCHULSKY 1860)**

Omalium brevipennis MOTSCHULSKY 1860

Mannerheimia doderoi GRIDELLI 1924 **nov.syn.**

C o m m e n t s : HAMMOND (1970a), ZANETTI (1987) and ASSING (2004) questioned the validity of *Mannerheimia doderoi*. No evidence of differences at the specific level between *Mannerheimia brevipennis* from Northern Europe and Turkey and *M. doderoi* from the Alps exists (ASSING 2004). Nevertheless the formal synonymy between these two species has never been proposed.

***Olophrum piceum* (GYLLENHAL 1810)**

Omalius piceum (GYLLENHAL 1810). Lectotype male (**here designated**) labelled Höb. /f (red) / Uppsala Univ. Zool. Mus. Gyllenhals saml. typ. 1214 (red) / aedeagus in Euparal / *Olophrum piceum* (Gyllenhal, 1810) / Lectotype des. Zanetti 2007 (red) (EMZU); 4 paralectotypes males with the number 1214 and the letters a, b, e (with label "Höb"), and j; 6 paralectotypes females with the number 1214 and the letters c, d, g, h, i (with label "Höb"), and k (EMZU) (Fig. 17)

Olophrum austriacum SCHEERPELTZ 1929 **nov.syn.** type (male) labelled ♂ / Ob. Oest. M. Priesner / Ebelsberg 14.II.1911 (blue) / ex coll. Scheerpeltz (blue) / Photographiert 9-12.XI.1928 O. Scheerpeltz (orange) / Typus *Olophrum austriacum* O. Scheerpeltz (red) / *Olophrum piceum* (Gyllenhal, 1810) det. Zanetti 2007 / aedeagus in Euparal / (NHMW). 1 paratype ♂ with the same data (NHMW); 1 paratype ♀ Donauauen b. Albern A.I. O. Scheerpeltz (NHMW); 1 paratype ♂ Karlsburg A. i. (NHMW) (Fig. 21)

Olophrum leleupi FAGEL 1848 **nov.syn.** type (male) labelled with the symbol ♀ / Mousses lâches Wavreille 9.ix.1947 N. Leleup / G. Fagel 1948 *Olophrum leleupi* mihi / Type (red) / R. Mus. Hist. Nat. Belg. IG 16-022 / cf. Bull. Mus. Hist. Nat. Belg. XXIV, n° 44, 1948, p. 1-4 / Coll. R. I. Sc. N. B. (IRSNB) (Fig. 23).

C o m m e n t s : *Olophrum austriacum* SCHEERPELTZ 1929 was described from Oberösterreich and it was reported from Südbayern and Austria in riparian habitats along the Danube and its tributaries (HORION 1963). The characters supposedly distinguishing it from *piceum* are the form of pronotum (widest in the posterior half in *piceum* and in the middle in *austriacum*), and the longer elytra of *austriacum* (SCHEERPELTZ 1929, LOHSE 1964). Many species of *Olophrum* described or diagnosed by SCHEERPELTZ (1929) are based on the form and puncturation of pronotum. The variability of these characters was pointed out by various authors who synonymized several species (*O. laticolle* J. SAHLBERG 1876 with *O. fuscum* GRAVENHORST 1806 by MUNSTER 1935; *O. nicolsoni* DONISTHORPE 1910 with *O. fuscum* (GRAVENHORST, 1806) by HAMMOND 1970b; *O. alpinum* HEER 1839, *O. bernhauerianum* SCHEERPELTZ 1929 and *O. recticolle* SCHEERPELTZ 1929 with *O. consimile* GYLLENHAL 1810 by CAMPBELL 1983). The difference of in the length of the elytra is inconsistent, in both species the elytral suture is about 1.8 times as long as the pronotum. Most specimens of *O. piceum* are testaceous and the typical specimens of *O. austriacum* are brown, but also colour is rather variable in *Olophrum*. The form of the elytra (convex in the posterior half) is the same, and rules out the synonymy with *O. fuscum*, which is similar in the form of the pronotum.

The aedeagus (Fig. 13), which distinguishes *O. piceum* from *O. fuscum* (see below), is decisive for the synonymy. The apex of parameres is within the variability range of *O. piceum* (Figs 17-23), which always possesses two apical close setae, plus a variable number of accessory setae.

Olophrum leleupi FAGEL, 1948 was described based on a single female specimen from Belgium. In this case, too, the form of the pronotum, with parallel sides, was considered to be of diagnostic value. Other characters indicated in the original description are the smaller size (4.1 mm vs 5-6 mm), lighter colour, shorter elytra, as well as coarse and denser puncturation of pronotum and elytra. The type of *O. leleupi* is in fact a male, the aedeagus falls in the variability range of *O. piceum*. Consequently, the holotype of *O. leleupi* is doubtlessly a small specimen of *O. piceum*.

Olophrum fuscum* (GRAVENHORST 1806)Omalium fuscum* GRAVENHORST 1806

Olophrum transversicolle LUZE 1905: synonymy confirmed: Lectotype male (**here designated**) labelled ♂ / Taufers Tir. Luze / Type transversicolle Luze / ex coll. Luze (yellow) / Typus *Olophrum transversicolle* Luze (red) / *Olophrum fuscum* (Gravh.) det. Zanetti 2008 aedeagus in Euparal, 3 paralectotypes female with the same data (NHMH (Fig. 29).

C o m m e n t s : *Olophrum fuscum* (GRAVENHORST 1806) is closely related to *O. piceum* (GYLLENHAL 1810) and not always easy to distinguish from it. Besides the exoskeletal differences (elytra more flattened, puncturation finer, pronotum less narrowed in front) the aedeagus is decisive for the identification. It is less elongate in *O. fuscum* and the apex of the parameres is different (HAMMOND 1970b) (Figs 14, 24-30), the two apical setae are more distant. *O. transversicolle* LUZE 1905, described from Tyrol and distributed in the Eastern Alps, was synonymized with *O. fuscum* by BERNHAUER & SCHUBERT (1910), then considered a valid species by SCHEERPELTZ (1929), a variety of *O. fuscum* by MUNSTER (1935) and a valid species by subsequent authors (e.g. LOHSE 1964 and ZANETTI 1987). The differential characters reported in the literature (sparser and finer puncturation, wider pronotum with almost straight margins in the middle) are not sufficient to consider it a valid species because the shape of the aedeagus, mostly the apex of the parameres, is the same (Fig. 29). A similar level of difference between Central European and Alpine populations in *Olophrum* can be observed in *O. consimile* GYLLENHAL 1810, whose alpine populations, formerly attributed to different species (see above) are now considered co specific.

***Olophrum puncticolle* EPPELSHEIM 1880**

Olophrum puncticolle EPPELSHEIM 1880. Lectotype male (**here designated**) labelled puncticolle mihi Süd Ungarn Kuthy / c. Eppelsh. Steind. d. / typus (red) / aedeagus in Euparal / Lectotypus *Olophrum puncticolle* Epp. des. A. Zanetti 2008 (red) (Fig. 15); 2 paralectotypes female with the same data, one with the label "Fauvel 47 vidit" (blu); 1 paralectotype male Ludbreg Croat. Apfelbeck; 1 paralectotype female Croatia Apfelbeck (NHMW).

Olophrum viennense SCHEERPELTZ 1929 nov.syn. Lectotype male (**here designated**) labelled ♂ / Umg. Wien Mariabrunn leg. Skalitzy / puncticolle Epp. / vidit Luze / ex coll. Skalitzy (green) / Photographiert 8-12.XI.1928 O. Scheerpeltz (orange) / Typus *Olophrum viennense* mihi O. Scheerpeltz (red) / Lectotypus *Olophrum viennense* Epp. des. A. Zanetti 2008 (red) / *Olophrum puncticolle* Epp. det. Zanetti 2008 (Fig. 16); 1 paralectotype female (labelled as type) with the same data; 2 paralectotypes ♂ and ♀ Mödling A. i. leg. Moczarsrki; 1 paralectotype ♀ W- r Neudorf leg. Scheerpeltz; 1 paralectotype ♀ Neusiedler See leg. Ad. Hoffmann (NHMW).

C o m m e n t s : *Olophrum puncticolle* EPPELSHEIM 1880 is a species reported from Austria, Bosnia-Herzegovina, Croatia, Hungary, Romania, Syria and Turkey (SMETANA 2004). It is not included in the most recent Mitteleuropean checklist of Staphylinidae (ASSING & SCHÜLKE 2007). *O. viennense* is reported from Austria, Czech Republic, Hungaria and Slovakia (SMETANA l.c.). According to the literature, the differences distinguishing the species are the form of the pronotum (narrower and more finely punctured in *O. puncticolle*) and the shape of the aedeagus. The differences in the form and puncturation of the pronotum are inconsistent, in the type series there are specimens intermediate between the lectotypes, the aedeagi have the same shape, and despite SCHEERPELTZ's opinion, the presence of two large spines in the internal sac at the apex is characteristic (Figs 15-16).

Genus *Arpedium* ERICHSON 1839

Arpedium ERICHSON 1839: type species: *Omalium quadrum* GRAVENHORST 1806

Eucnecosum REITTER 1909: type species: *Omalium brachypterum* GRAVENHORST 1802;
synonymy confirmed, not subgenus.

C o m m e n t s : *Eucnecosum* REITTER 1909 was described as subgenus of *Arpedium* ERICHSON 1909 based on the following characters: *Arpedium* – anterior part of body without pubescence, strongly punctured, head with parallel temples and deep pits on vertex, elytra long; *Eucnecosum* – dorsal surface with fine pubescence, head and pronotum with fine puncturation, the first almost smooth, furrows on vertex fine and shortly impressed, elytra short, body flattened, yellowish-brown. *Eucnecosum* was considered a valid genus by LOHSE (1963) and this state was accepted in the subsequent literature. Recently ASSING (2007) described *Arpedium ludgeri*, a new species from Kyrgyzstan which "combines characters typically observed in *Arpedium* with those of *Eucnecosum*, thus rendering the separation of these taxa on the generic level doubtful". He wrote also: "The characters indicated in the literature (...) to distinguish the two taxa (e. g. presence/absence of microsculpture, length and density of pubescence, length of antennae, relative length of palpomeres) do not seem to justify such a distinction. Finally, I have been unable to appreciate the presence/absence of a subocular ridge as a useful character." He argued also that "there is little doubt that *Eucnecosum* will eventually have to be treated as a subgenus again or may even have to be synonymised with *Arpedium*. Such changes, however, should be based on a thorough phylogenetic study of these taxa, which is not within the scope of the present paper". I think that this argument should be used in the reverse sense, i.e. that without phylogenetical study no serious reason to maintain *Eucnecosum* as a valid genus exists.

***Geodromicus kunzei* (HEER 1839)**

Geobius kunzei HEER 1839

Anthophagus lituratus KRAATZ 1857 **synonymy confirmed**. Lectotype male (**here designated**) labelled Kahr. / Tyrol / *lituratus mihi* / coll. Kraatz / DEI Eberswalde / Syntypus (red) / *Geodromicus lituratus* Kraatz / coll. DEI Müncheberg / *Geodromicus kunzei* (Heer) det. Bordoni 1989 / Lectotypus *Geodromicus lituratus* Kraatz des. Zanetti, 2008 (red) / *Geodromicus kunzei* (Heer) det. Zanetti 2008 (DEI); 1 paralectotype male with the same data (DEI).

C o m m e n t s : *Anthophagus lituratus* KRAATZ 1857 was described as a new species based on specimens from Tyrol. It was considered an aberration of *Geodromicus globulicollis* (MANNERHEIM 1830) by LUZE (1903). LOHSE (1964) considered it a variety of *kunzei* with longer elytra. BORDONI (1984) regarded it as a valid species again, without examination of the typical series. ASSING & SCHÜLKE (2007) reported it as a valid species. The typical series confirms the synonymy of *G. lituratus* with *G. kunzei*, which was already recognized (but not published) by Bordoni, who examined the syntypes in 1989. The specimen interpreted as *G. lituratus* by BORDONI (1984) belongs to a completely different species. According to LOHSE (1964), the "var." *lituratus* is characterized by longer elytra. In fact the length of the elytra of the type of *G. lituratus* is within the variability range of the typical *G. kunzei*.

Additional modifications of the checklist of the Central European Staphylinidae, subfamily Omaliinae

Some other modifications of the Central European checklist are reported. In some cases the addition became necessary as a result of the decision to include in the new keys the species from all of Switzerland, also from the French and Italian parts.

Species to be removed

Eusphalerum miricolle (SAINTE-CLAIRE DEVILLE 1901) (in the French and Italian Alps only)
Eusphalerum obtusicolle (FAUVEL 1876) (in Northern Spain, Pyrenees, and Southern French only)
Eusphalerum octavii (FAUVEL 1871) (in the French and Italian Alps and in the Apennines only)
Eusphalerum procerum (BAUDI DI SELVE 1857) (in the French and Italian Alps only)
Omalius deubeli BERNHAUER 1915 (records from Central Europe are erroneous, see ZANETTI 2002)
Omalius imitator LUZE 1906 (in the Balkans only)

Species to be included, based on BESUCHET (unpubl.)

Eusphalerum bargaglii (LUZE 1910) (Switzerland)
Eusphalerum pulcherrimum (BERNHAUER 1901) (almost certainly also in Tessin, Switzerland)
Dropephylla devillei (BERNHAUER 1902) (in Switzerland)
Lesteva fontinalis KIESENWETTER 1850 (in Switzerland)
Lesteva lepontia BAUDI DI SELVE 1869 (in Switzerland)
Lesteva villardi MULSANT & REY 1880 (in Switzerland)

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Zusammenfassung

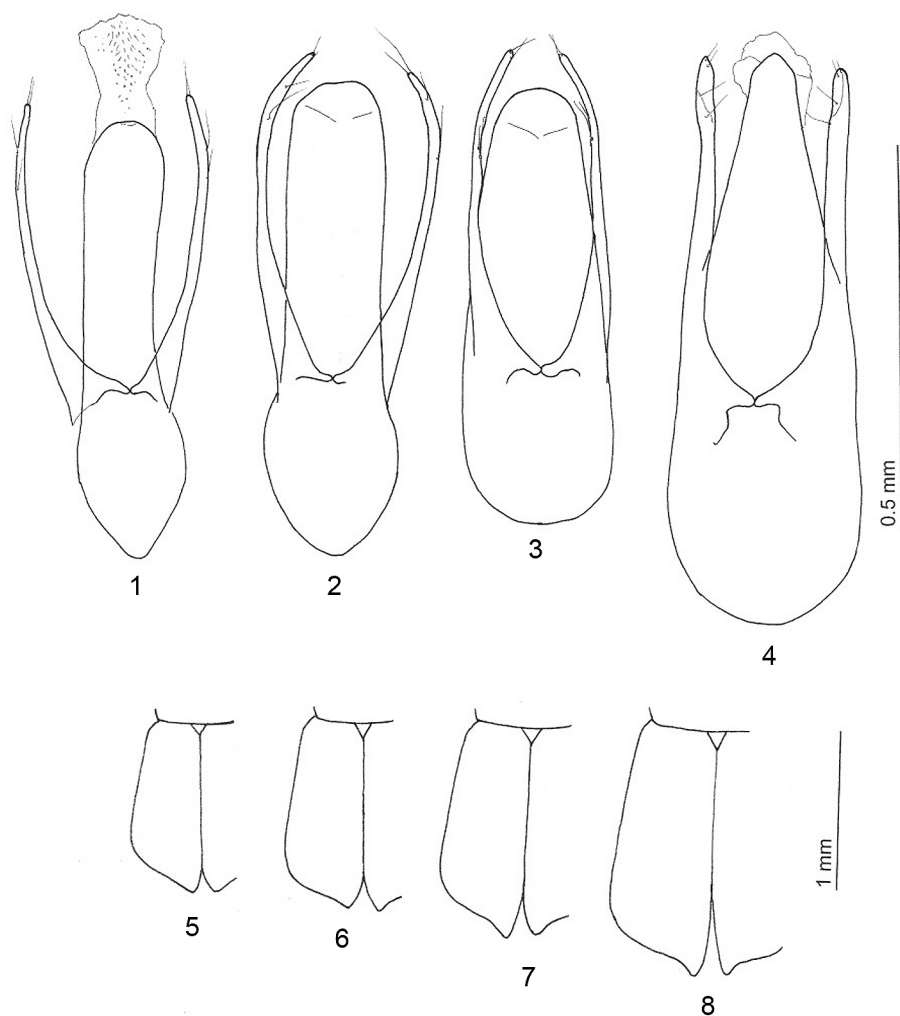
Folgende neue Synonyme aus der Staphylinidenunterfamilie Omaliinae in Europa werden festgehalten. *Eusphalerum minutum* (FABRICIUS 1792) = *E. petzianum* (BERNHAUER 1929) nov.syn. = *E. jurassicum* (JARRIGE 1946) = *E. subjurassicum* COIFFAIT 1959; *Eusphalerum anale* (ERICHSON 1840) = *E. subangusticolle* COIFFAIT 1959 nov.syn.; *Phyllodrepa melis* HANSEN 1940 = *P. linderi* SCHEERPELTZ 1966 nov.syn.; *Mannerheimia brevipennis* (MOTSCHULSKY 1860) = *M. doderoi* GRIDELLI 1924 nov.syn.; *Olophrum piceum* (GYLLENHAL 1810) = *O. austriacum* SCHEERPELTZ 1929 nov.syn. = *O. leleupi* FAGEL 1948 nov.syn. Folgende Synonymisierungen wurden bestätigt: *Olophrum fuscum* (GRAVENHORST 1806) = *Olophrum transversicolle* LUZE 1905; *Olophrum puncticolle* EPPELSHEIM 1880 = *Olophrum viennense* SCHEERPELTZ 1929; *Arpedium* ERICHSON 1839 = *Eucnecus* REITTER 1909; *Geodromicus kunzei* (HEER 1839) = *Geodromicus lituratus* (KRAATZ 1857). Weiters wurden folgende Lectotypen festgelegt: *Sylpha minuta* FABRICIUS 1792, *Omalius ranunculi* GRAVENHORST 1802, *Omalius nigrum* GRAVENHORST 1806, *Omalius translucidum* KRAATZ 1857, *Phyllodrepa linderi* SCHEERPELTZ 1966, *Omalius piceum* GYLLENHAL 1810, *Olophrum puncticolle* EPPELSHEIM 1880, *Anthophagus lituratus* KRAATZ 1857.

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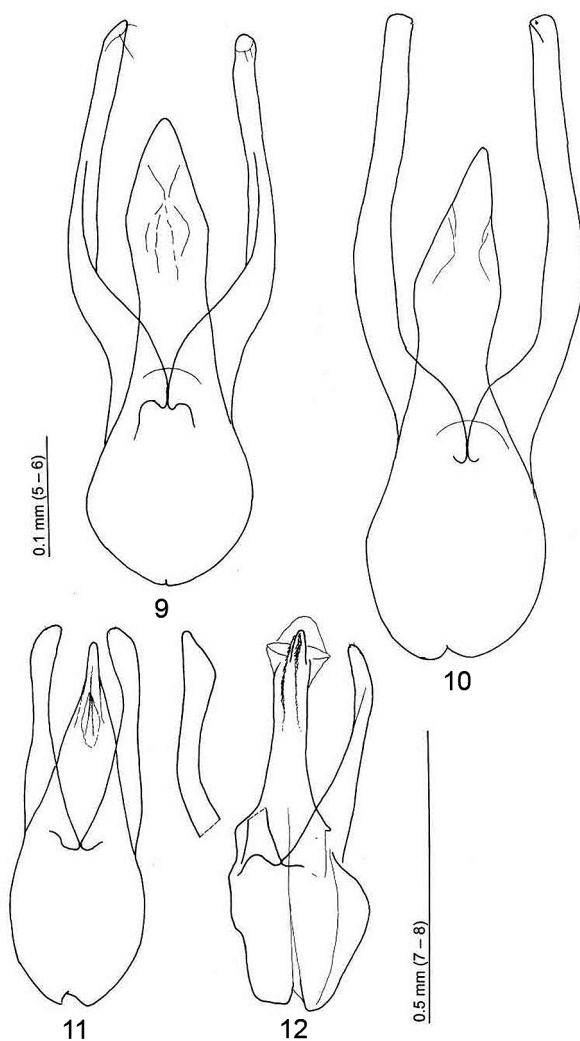
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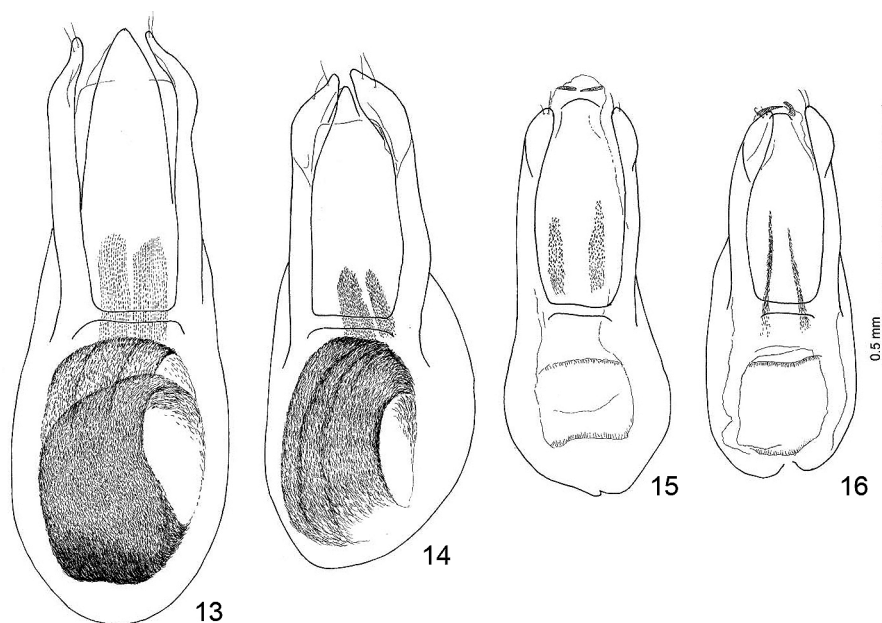
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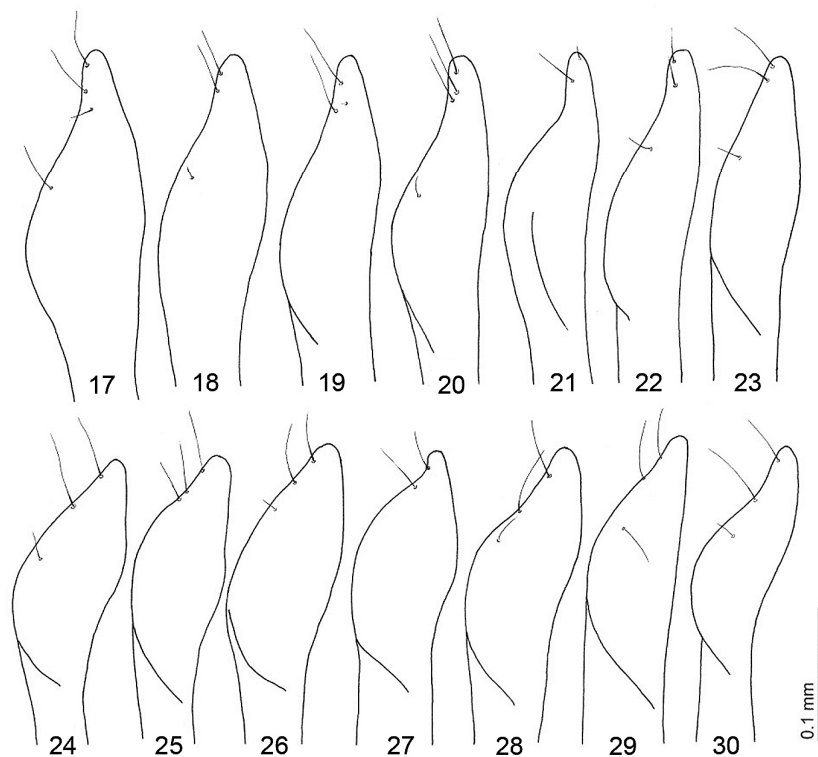
Figs 1-8: *Eusphalerum minutum* (FABRICIUS) (1-3), aedeagus (dorsal): (1) paralectotype of *E. jarassicum*; (JARRIGE); (2) lectotype of *O. ranunculi* (GRAVENHORST); (3) paratype of *E. subjurassicum* (COIFFAIT), *Eusphalerum anale* (ERICHSON) (4), aedeagus (dorsal): holotype of *E. subangusticollae* (COIFFAIT). *Eusphalerum minutum* (FABRICIUS) (5-8), elytra of the female: (5) topotype of *E. jarassicum* (JARRIGE); (6) specimen from Seefeld (Tyrol, Austria); (7) idem; (8) type of *E. petzianum* (BERNHAEUER).



Figs 9-12: *Phyllodrepa nigra* (GRAVENHORST), aedeagus (dorsal) (9-10): (9) lectotype of *Omalium translucidum* (KRAATZ); (10) lectotype of *O. nigrum* (GRAVENHORST). *Phyllodrepa melis* HANSEN, aedeagus (dorsal) (11-12): (11) specimen from Hühbeck (Niedersachsen, Germany); (12) lectotype of *P. linderi* (SCHEERPELTZ).



Figs 13-16: *Olophrum*, aedeagus (dorsal): *O. piceum* (GYLLENHAL): (13) specimen from Winsen (Niedersachsen, Germany); *O. fuscum* (GRAVENHORST): (14) specimen from Revsund (Sweden); *O. puncticolle* EPPELSHEIM: (15) lectotype; (16) type of *O. viennense* SCHEERPELTZ.



Figs 17-30: *Olophrum piceum* (GYLLENHAL), apex of paramere: (17) lectotype; (18) specimen from Meppen (Niedersachsen); (19) idem; (20) specimen from Friedland (Germany); (21) type of *O. austriacum* SCHEERPELTZ; (22) specimen from Meppen (Niedersachsen); (23) type of *O. leleupi* FAGEL. *Olophrum fuscum* (GRAVENHORST), apex of paramere: (24) specimen from Torfhaus (Niedersachsen); (25) idem; (26) specimen from Plön (N Germany); (27); specimen from Winsen/Luhe (Niedersachsen); (28) specimen from Revsund (Sweden); (29) type of *O. transversicolle* LUZE; (30) specimen from Val Calamento (Trento, Italy).



Fig. 31: *Eusphalerum minutum* (FABRICIUS), lectotype female (right) and paralectotype female (left).